DOCUMENT RESUME

ED 350 421 CE 062 101

AUTHOR	Rutherford, Jane
TITLE	Illiteracy and Older Canadians: An Unrecognized Problem. Summary Report and Literature Review.
INSTITUTION	One Voice, the Canadian Seniors Network, Inc., Ottawa (Ontario).
SPONS AGENCY	National Literacy Secretariat, Ottawa (Ontario).
PUB DATE	Jun 89
NOTE	53p.
AVAILABLE FROM	One Voice, the Canadian Seniors Network, 901-350 Sparks Street, Ottawa, Ontario K1R 7S8, Canada (summary report: $1.50; literature review: $6.50, non-members, $5, members).
PUB TYPE	Information Analyses (070)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	Adult Basic Education; *Adult Literacy; Developed Nations; *Educational Needs; Educational Policy; Foreign Countries; *Literacy Education; Middle Aged Adults; *Older Adults; *Policy Formation; *Program Design; Public Policy
IDENTIFIERS	*Canada

ABSTRACT

Many older Canadians (almost half, by some surveys) have low levels of functional literacy that lead to problems with everyday life. More than half of Canadians over age 55 have less than a grade 9 education, and they often have lower incomes than more literate seniors. However, older people are the smallest group represented in adult basic education programs. The elderly often do not participate because of the design or the location, not wanting to go out at night, and characteristics of the program or of the population. Literacy programs for older low literate adults should rely on input from gerontologists, literacy experts, and older adults, along with needs analysis in particular communities. Some programs for the elderly have been developed and they should be explored as models. (The summary is followed by a literature survey that covers the following topics: a profile of the illiterate older adult, interest and ability to acquire literacy in later years, deterrents to participation by older adults in existing literacy programs, differences between older and younger adults as they affect educational needs, design considerations for a literacy program for the elderly, groups with special needs within the illiterate elderly, literacy programs for seniors, and suggestions for further study and action. The survey lists 98 references.) (KC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED350421

Illiteracy and Older Canadians: An Unrecognized Problem Summary Report

Literature Review

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

A Aitkens

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CE052101

ONE VOICE ***The Canadian Seniors Network***
LA VOIX ***Le réseau canadien des aînés***

BEST COPY AVAILABLE

Illiteracy and Older Canadians: An Unrecognized Problem

Summary Report

One Voice — The Canadian Seniors Network
June 1989

ILLITERACY AND OLDER ADULTS: An Unrecognized Problem
Summary Report
One Voice — The Canadian Seniors Network
Ottawa, 1989

Additional copies may be purchased for $1.50 for postage and handling. The complete report entitled ***Illiteracy and Older Canadians: An Unrecognized Problem — A Literature Review*** is also available at a charge of $6.50 ($5.00 for members of **One Voice**), which includes $2.00 for postage and handling.

To order, please write or call:

One Voice — The Canadian Seniors Network
901 - 350 Sparks Street
Ottawa, Ontario
K1R 7S8

Telephone: (613) 238-7624
FAX: (613) 235-4497

One Voice — The Canadian Seniors Network is a national, non-profit, membership-based organization dedicated to ensuring a high quality of life for all elderly Canadians.

Acknowledgement

One Voice wishes to thank Jane Rutherford for the preparation of this report.

Copyright 1989 **One Voice** Seniors Network (Canada) Inc.

Many older Canadians have problems reading, writing and doing basic calculations. A recent cross-Canada survey of literacy levels of the adult population revealed that one in four adults aged 18+ have deficient literacy skills. Older adults are in an even worse situation. Nearly 40% of Canada's senior citizens were pronounced illiterate by the 1987 survey results.

Across the country, there is a general tendency for decreasing levels of literacy the further east one looks. Whereas 28% of the elderly in British Columbia were found to be illiterate, 50% of the senior citizens in the Maritime provinces suffer the problem. Native French speaking older adults are more likely to be illiterate than native English speakers (48% compared to 36%).

These are shocking statistics and speak of widespread difficulties faced by many Canadians in coping with our highly literate society. Research findings related to the study of illiteracy in older adults can help us better understand the nature of the problem.

Illiteracy - What It Means and How It Is Measured

There has been much discussion on the appropriate definition and method of assessment for literacy. A traditional technique, the one used by the government of Canada and UNESCO, defines and evaluates literacy level in terms of highest level of educational attainment. Those who have less than 6 years of formal education are said to be illiterate. Another method which has been used, looks at the complexity of written material a person is able to read with understanding, and assigns a grade level equivalency score as a measure of reading ability, e.g. "x" can read at a grade 4 level. Criticisms have been leveled at both of these approaches because neither presents a clear picture of what a person is actually capable of reading in day to day contact with the printed world.

The notion of functional literacy has arisen in the past 20 years and represents an effort to express literacy and its assessment in terms of everyday reading, writing and numeracy tasks. Illiteracy, as defined by this method, refers to an inability to adequately function in real-life situations, e.g. not understanding a phone bill or not being able to determine whether the bill for a restaurant meal is accurate. An important aspect of measuring functional literacy is the use of a test that has practical tasks which reflect the literacy and numeracy needs of a given group.

There is no test of functional literacy in existence which is designed specifically for older adult readers. Many researchers have questioned the validity of using tests designed for younger and middle aged people with the elderly. The available statistics on functional literacy levels in older adults were taken from surveys of the general adult population. The number of elderly respondents is usually minimal; thus there is a problem of making generalizations about a large group based on a small number of respondents.

Characteristics of the Illiterate Older Adult

Illiterate older adults in Canada have less education than the average adult. More than half of all seniors have less than a grade 9 education compared with about 21% of the general adult population with that level (1981 census). Senior citizens with reading problems tend to have lower incomes than their better reading peers. Average annual income for illiterate seniors is $11,500, whereas it is greater than $20,000 for literate seniors. More older men than older women have difficulties with reading and writing. This difference appears to be related to attitude and self-image problems among elderly men.

Seniors' Interest and Ability in Learning to Read

One must not assume, on the basis of these findings, that nearly half of Canada's elderly are unable to cope in society because of poor literacy skills. That is not the case because, by necessity, illiterate adults have an efficient coping network in place. Friends at work and family assist when the illiterate person needs help, and routines are developed to circumvent the need for reading and writing. With aging, however, this network begins to crumble for many illiterate adults, as they retire from work, and family members are lost due to death or moving away. Gradually, a person may find he or she is no longer able to cope.

Other seniors who do not feel an urge to learn how to read or write because of increased need, may, after retirement, experience a desire to complete what has been left undone in their lives while time and energy remains.

Ability to learn does not diminish with age. Older adults take longer to process information but, if adequate time is allowed, successful learning is possible. Some researchers point to an increase in intelligence with age when it is considered in terms of worldly experience.

Reasons for Non-participation of Older Adults in Existing Programs

The estimated number of older people with deficient literacy skills is high. There is good reason to believe that many of the illiterate elderly have an increased need and/or interest in improving their reading and writing abilities. Although older adults are the largest single segment of the population with literacy problems, they are the smallest group represented in terms of attendance at existing adult basic education programs.

Reasons that the elderly give for non-participation in programs often relate to characteristics of the program design or the location where it is offered. The most cited reason is not wanting to go out at night. Other scheduling details tended to be unpopular with seniors: Classes were often thought to be too long, too frequent and too large. Many older adults find the location awkward to reach and experience transportation difficulties. Once there, buildings are often inaccessible and not welcoming. There are too many stairs, poor lighting and uncomfortable furnishings. Testing and strict attendance procedures are not favored by many older students.

Some of the deterrents to participation in existing adult programs stem from characteristics of the potential students. Cognitive, psychological, motivational and interest differences between older and younger adults, as well as the obvious physical differences, can lead to an elderly learner feeling uncomfortable in a general literacy program.

Although older adults do not experience a decline in intelligence, there are changes in cognitive functioning that affect efficiency of learning. Some of these changes are physiologically based. For example, response times are slower. Other changes, such as organization difficulties and inability to mentally focus, are thought to exist on a processing level only.

Older adults returning to education may suffer from a variety of fears, insecurities and anxieties. Many of these are related to previous failures at school. There is a tendency for the elderly student to be more cautious, hesitant and reliant on the teacher for direction in learning.

Younger adults usually register in basic education programs for employment or skills upgrading; for the older adult, socialization and self fulfillment are important. Reading and discussion topics which older adults tend to prefer in basic education classes are accordingly different. Several researchers isolated health as a main interest area for the older new reader. Subjects related to aging are also of interest, e.g. changes in finance, housing and health concerns, widowhood and the grieving process.

Suggested Features of a Literacy Program for Seniors

There is a need for literacy programs designed specifically for older illiterate adults according to many education researchers. Such programs would rely on input from gerontologists, senior center and social service representatives, literacy experts, education planners and seniors in the initial organizing stages. A key feature of a successful program would be a needs analysis of a specific group of older adults in a given community. In order for good participation, the program should be situated in a location that seniors already attend for other purposes. Depending on the community, this could be a senior center, public library, community center or nursing home. In-home study or a mobile unit might be thought necessary in some instances. Consideration should be given in early planning as to whether professional teachers or volunteer tutors will be used.

Direct contact from a sincere and trustworthy person, particularly one associated with the literacy program, is the most effective recruitment technique. Students should be involved in detailed program planning along with the teacher and possibly a building facility representative. Such involvement encourages later course participation. Operation details usually found appealing to seniors include: short classes preferably in the morning, once or twice a week; modest (as opposed to free) registration fee; possibility for continuous enrollment; awarding of a completion certificate is appreciated.

Training in the use of specific teaching strategies designed to combat the physiological and psychological ill effects of aging is necessary for teachers and tutors. Such specialized techniques would supplement the standard literacy instruction methods recommended for use with adults, by literacy experts. The integration of reading and writing instruction in the context of a topic seen as interesting or useful by the elderly student is very important. Teachers should encourage students to set their own realistic goals and then make sure these are met. Constant, positive feedback in a low-pressure, slow-paced environment which permits socialization as well as instruction, will improve the likelihood of successful learning.

Literacy Programs that have been Developed for Older Learners

There are literacy programs specifically for seniors operating in Canada but they are few in number and tend to be most often in a residence setting. Thus, there appears to be very few programs for independent seniors with reading problems. School boards in Ontario may apply for grants from the Ontario Ministry of Education to help cover the set-up and operating costs of a community based literacy program for seniors. There is no communication between programs other than at the level of individual school boards.

The Literacy Education for the Elderly Project was a large program in the United States. It was operated as a pilot study for a two year period. When the project came to a close in 1986, 27 community based sites had been opened for teaching reading and writing, 600 students had participated and 500 volunteer tutors had been trained. Much of the success of this effort was credited to the involvement of the aging network in helping to define a need and situate the programs at a local level. Several publications are associated with *The Literacy Education for the Elderly Project* which have an extremely practical orientation. Topics discussed include program planning, site location and tutor training. A package of reading materials for the older new reader is also available.

Conclusions

Canada is not unique among the industrialized countries in the extent of illiteracy in its elderly population. It is a pervasive problem and one which is frequently overlooked. Some researchers argue that there will always be a significant problem of illiteracy among adults. Whatever the case, simply waiting for the current problem of illiteracy in the older population to disappear, would not be fair on the generation of older people now experiencing difficulties.

The United Nations General Assembly has proclaimed 1990 to be International Literacy Year. The focus is a "summons to action" rather than a celebration of what has been achieved in improving literacy levels. We have seen that there is a large group of illiterate adults in our country whose needs are not being met. Let's take up the challenge, and for International Literacy Year, make a commitment to helping the older adults in Canada with reading problems.

Direction to take for further study may be considered from two perspectives:

a) Given that a great number of senor citizens are lacking in literacy skills, an effort should be made to adjust the printed world they come in contact with, to make it easier to cope.

b) We can assist illiterate older adults in improving their reading and writing skills by making good programs available, accessible and enticing.

An important first step, no matter which way we proceed, is to increase public awareness. Only then can we hope for the degree of support from both the public and private sectors that will be needed to overcome the problems faced by our illiterate elderly.

Illiteracy and Older Canadians: An Unrecognized Problem

A Literature Review

Prepared by
One Voice - Canadian Seniors Network
with financial assistance from the
National Literacy Secretariat,
Department of the Secretary of State

ILLITERACY AND OLDER ADULTS: An Unrecognized Problem
A Literature Review
One Voice — The Canadian Seniors Network
Ottawa, 1989

Additional copies may be purchased for $6.50 ($5.00 for members of **One Voice**), which includes $2.00 for postage and handling. A Summary Report is also available at a charge of $1.50 for postage and handling.

To order, please write or call:

One Voice — The Canadian Seniors Network
901 - 350 Sparks Street
Ottawa, Ontario
K1R 7S8

Telephone: (613) 238-7624
FAX: (613) 235-4497

One Voice — The Canadian Seniors Network is a national, non-profit, membership-based organization dedicated to ensuring a high quality of life for all elderly Canadians.

Acknowledgement

One Voice wishes to thank Jane Rutherford for the preparation of this report.

Copyright 1989 **One Voice** Seniors Network (Canada) Inc.

Table of Contents

Introduction and Definitions		1
A Profile of the Illiterate Older Adult		4
International Perspective on Illiteracy in the Elderly		8
Interest and Ability to Acquire Literacy in Later Years		11
Deterrents to Participation by Older Adults in Existing Literacy Programs		14
Differences between Older and Younger Adults as they Affect Educational Needs		16
I	Cognitive Differences	16
II	Psychological Differences	16
III	Motivational and Interest Differences	17
Design Considerations for a Literacy Program for The Elderly		19
I	Initial Planning: A Multi-discipline Approach	19
II	Program Specific Planning	20
III	Instructor Selection and Training	21
IV	Teaching Methodology	21
Groups with Special Needs within the Illiterate Elderly		23
A Brief Look at Literacy Programs for Seniors		24
Conclusions		27
Suggestions for Further Study and Action		28
References		30

INTRODUCTION AND DEFINITIONS

This report presents the findings of a literature review undertaken for ONE VOICE in the area of illiteracy in older adults with a focus on the situation in Canada. Information on programs and materials designed specifically for teaching literacy to the elderly is included as well as suggestions for further study.

For the purpose of this investigation, the definition of older adults used by Davie et al (1978), is adopted. It comprises, "those persons age 55 years and over who are no longer working at their major occupations or who consider themselves to be retired" (pg 15). A definition of literacy or illiteracy is not so straightforward. In fact, the controversy surrounding the definition of literacy and the means used to assess it, may be considered one of the significant issues in our study of illiterate older people in Canada.

In the broadest sense, literacy is defined as the ability to exhibit all of the behaviors a person needs in order to respond appropriately to all possible rating tasks (Bormuth 1973 as cited in Nafziger et al 1976). The UNESCO definition of literacy is widely used: A person is literate who can with understanding both read and write a short simple statement on her/his everyday life. An illiterate person is one who cannot do this. Working definitions of literacy are often based on number of years of formal schooling (the Canadian government considers a person with fewer than 6 years of education to be illiterate) or on grade level equivalency scores e.g. 'x' can read at a grade 4 level. Both of these techniques have been criticized because they do not provide a clear idea of what the person is actually capable of reading. Economic factors have even been used to assess the literacy level in a given society by examining the volume of paper used by the printing industries or the amount of ink used over a given time (Bormuth 1978). This assessment is even less practical.

The general consensus in opinion at the present among researchers, is that literacy is not a solitary trait and is made up of many subskills. This idea gave rise to the notion of functional literacy. The UNESCO definition states a person is functionally literate who can engage in all those activities in which literacy is required for effective functioning of his/her group and community and also for enabling him/her to continue to use reading, writing

and calculation for his/her own and the community's development. The concept of functional literacy is wider than that of basic literacy and involves the use of more and varied skills from the individual. Tests of functional literacy are based on the literacy activities a given individual would have to perform in a given group e.g. reading bills or bus schedules, filling in credit card application forms, etc. Note that numeracy, the ability to perform arithmetic computations, is an element of functional literacy. While not adopting the functional definition of literacy, the Government of Canada acknowledges this distinction of levels of literacy and collects data on its citizens who have grade 9 or less education (considered functionally illiterate), as well as those with grade 5 or less education (considered illiterate).

Kirsch and Guthrie (1978) suggest that the differences in definition are due to an evolving notion of literacy because of a changing society. Presently, the concept of functional literacy is seen as outdated by some researchers who prefer to consider functional competency. By this definition, literacy moves out of the realm of printed language and includes communicative skills (Kirsch & Guthrie 1978).

We have strayed far and wide from our discussion of illiteracy in older adults. It is important for the reader to appreciate the problems of definition and assessment of literacy, however, because it directly affects what we know about our group. There has not been a test of functional literacy done of the elderly in any country. Adequate definitions and measures of functional literacy designed specifically for older adults are non-existent (Courtenay, Stevenson, & Suhart 1982; Nafziger et al 1976). Information we have on functional literacy of older adults has been culled from surveys designed for the general adult population. The actual number of senior citizens surveyed is generally low. This leads to difficulty in drawing conclusions about any group. For the elderly it is particularly troublesome, however, as individual differences become more pronounced with age making it necessary to gather input from as many older adults as possible (Kasworm & Courtenay 1982). In addition to this problem, the appropriateness of using functional measures designed for young and middle aged adults with older people has not been considered. Researchers who have used general adult functional literacy surveys for seniors have simply assumed that the aged want and need to read the same informational

literature, application forms, etc. There is no empirical research supporting this (Rigg & Kazemak 1983). For these reasons, data from functional literacy surveys with respect to illiteracy in older adults, should be considered as tentative (Allington & Walmsley 1980; Courtenay, Stevenson & Suhart 1982; Fisher 1986; MacLean 1979; Rigg & Kazemak 1983).

Keeping in mind the limitations of both traditional and contemporary definitions and assessment measures of literacy, let us consider the extent of the problem of illiteracy in older adults and what we know about this group.

A PROFILE OF THE ILLITERATE OLDER ADULT

The number of older adults in Canada has been growing steadily. At the turn of the century 5% of Canadians were age 65+. By 1971, the proportion had risen to 8% and the latest census in 1981 shows that nearly 10% (2,350,000 people) of all Canadians are senior citizens. As life expectancy continues to increase and the baby boom generation ages, the number of elderly will continue to rise. Projections by Statistics Canada suggest that by the year 2031 older adults will make up 21% of the general population.

The problem of illiteracy is more acute among older people in Canada than among the general adult population. Using the highest grade level attained as a measure of literacy, Statistics Canada reports 51.7% of adults age 65+ had literacy problems (defined as less than grade 9 education) compared with 20.7% of younger and middle aged adults (1981 census). The Southam Literacy Survey conducted in 1987 using functional measures of literacy, found 24% of the general adult population was illiterate. Illiteracy among older adults was considerably higher: 32% of adults ages 55 to 64, and 45% of adults 65 years and older were found to be functionally illiterate (Creative Research 1987).

An effort was made to get information that would allow comparison of the extent of illiteracy in the elderly in different parts of Canada and between French and English speakers. Statistics Canada does not make such data available and caution against using it as the numbers are so small as to be unreliable. Although the Creative Research Group did not publish statistics on regional variation of illiteracy among older adults, when contacted directly, they were able to provide the data displayed in Table 1.

Table 1: Functional Illiteracy in Canada by age and province or area

Province or Area	% age 55+	% illiterate among 55+	% illiterate among 18+
Canada	29.1	39.1	24.0
Atlantic Provinces	33.1	50.0	29.0
Quebec	27.5	47.5	28.4
Ontario	29.0	34.4	23.6
Manitoba & Saskatchewan	—	—	—
Alberta	25.2	35.0	20.0
British Columbia	32.6	28.0	17.0

Source: Unpublished data from 1987 Southam Literacy Survey obtained from The Creative Research Group 1989

Note: Statistics for Manitoba and Saskatchewan were not available due to small sample size.

The extent of functional illiteracy among Canada's elderly population varies from 28% in British Columbia's senior citizens to 50% of older adults in the Atlantic region of the country. The trend for increased levels of illiteracy the further east in Canada is true in the case of older adults as well as for the adult population in general.

Francophone adults displayed higher levels of illiteracy than Anglophones. Nearly half (48%) of French speaking senior citizens in Canada were found to have difficulties with reading compared with 36% of Anglophone seniors with a similar problem (Creative Research 1987).

As with any other group of people, older adults with reading problems do not comprise a homogeneous group; they differ from one another with respect to background, personality and lifestyle. They may have had successful or unsuccessful lives. Researchers have been able to find some generally shared characteristics, however.

Older adults represent the highest level of undereducated of any adult age group. Over half of older people reported less than nine years of schooling compared with 21% of adults aged 25 - 64 (The Elderly in Canada 1984). For people aged 85+ (the oldest age group examined) fully 61% had less than a grade 9 education. The Southam Literacy Survey found a similar pattern (Creative Research 1987). The lower level of education in the elderly has been attributed to a number of different causes. Children may have left school early due to family financial problems (many of today's older adults were children or teenagers during the Great Depression), or to work at home during planting season or harvest time. Teachers were not as well trained 50 or more years ago as they are now; poor teaching may have led to poor learning as well as poor attitudes to education and eventually to premature drop-out. Other families were immigrants to Canada and the children suffered language problems at school which were not addressed by the system.

Level of income is generally lower for senior citizens in Canada. Average income for literate 35 to 54 year olds is $25,000; average income for literate 55+ is $20,700 (Creative Research 1987). Senior citizens who are also illiterate suffer a decrease in an already lower than average income. Average income for an illiterate person 35 to 54 years old is $16,700; average income for an illiterate person 55+ is $11,500 (Creative Research 1987). As well as suffering poverty, illiterate older adults are also more likely to be from a racial or ethnic minority group and retired from working as domestics, kitchen help, unskilled laborers, factory workers, etc.(Spore 1980).

A tendency for greater illiteracy among males exists in the adult population in general; 26% of all adult men were found to be illiterate compared with 22% of all adult women (Creative Research 1987). Among the elderly, men again appear to have greater problems with literacy than women in Canada. Comparing the sexes at ages 55 to 64, 34% of males and 29% of females are illiterate. At ages 65 or older, 53% of the men are functionally illiterate, whereas 39% of the women suffer this difficulty (Creative Research 1987). Elderly men report different reasons for not participating in basic education programs and tend to be hindered more by self-image problems (Goodrow 1975).

INTERNATIONAL PERSPECTIVE ON ILLITERACY IN THE ELDERLY

Very little information is available on illiteracy among senior citizens in other countries. Although there is a wealth of literature on the topic of literacy, the focus world wide is directed at ensuring that successive generations have improved literacy levels. Less is written about the problems of illiteracy in the adult population; reading and writing problems experienced by the elderly are generally overlooked.

Statistics on literacy can be difficult to obtain for developed countries. There is a general assumption in such countries that literacy is universal because educational attainment is so high. Age specific statistics on literacy are often no longer collected (Torrey, Kinsella & Taeuber 1987).

A number of large, comprehensive literacy surveys have been conducted in the United States in the last 20 years. The most recent study, was undertaken by the National Assessment of Educational Progress in 1985. Data on illiteracy in older adults were not produced by this survey, however, due to the age restriction for respondents. (Only adults between the ages of 21 and 25 were studied.) Other studies include the Survival Literacy Study (Harris and Associates 1970), the Adult Performance Level Project (1977), and the Adult Functional Reading Study (Murphy 1973 as cited in Fisher 1978). These found the percentage of illiterate older adults in the United States to be 5-17%, 35% and 39%, respectively. The Survival Literacy Study and the Adult Performance Level Project have been criticized with respect to the reliability of their statistics on illiteracy levels for the elderly due to insufficient numbers of respondents in that age group. The functional tests used for older respondents have also been questioned (Courtenay, Stevenson & Suhart 1982). The results of the Adult Functional Reading Study (Murphy 1973 as cited in Fisher 1978) are not widely used due to a general weakness in analysis and presentation of the data (Fisher 1978). Although the statistics available from this study include figures for illiteracy in older adults, general conclusions about trends and other characteristics associated with the findings may not be made.

A comparison of statistics on illiteracy in selected countries around the world reveals that Canada is not alone in its high levels of illiteracy among the elderly (see Table 2). Statistics available from all countries indicate reading and writing skills are generally lower and frequently inadequate in older adults.

Table 2 - Illiteracy among Adults, by Age and Selected Country

	Age	Illiterate (%)
Canada 1987	Adults 18+	24
	55+	39.1
U.S.A. 1973	Adults 16+	26
	60+	39
Italy 1981	Adults 15+	3.5
	65+	10.8
Portugal 1981	Adults 15+	20.6
	65+	53.6
Israel 1983	Adults 15+	8.2
	65+	20.2
Brazil 1980	Adults 15+	25.5
	65+	53.8
Bangladesh 1981	Adults 15+	70.8
	65+	81.0
Singapore 1980	Adults 15+	17.1
	65+	62.2

Sources: Canada - The Creative Research Group Ltd. *Literacy in Canada. A Research Report*; United States - Richard Murphy *Adult Functional Reading Study* as cited in Donald L. Fisher, *Functional Literacy and the Schools;* Italy, Portugal, Israel, Brazil, Bangladesh, Singapore - UNESCO, *Compendium of Statistics on Literacy.*

Notes: All data were derived from national censuses and surveys. As such, definitions of illiteracy and assessment measures used were not standardized. Data from Great Britain were not available because statistics on literacy are not collected.

Illiteracy among seniors in developing countries is generally more widespread (Torrey, Kinsella & Taeuber 1987). The elderly of today in these

countries lived most of their lives prior to the recent aid and socioeconomic development offered from the First World, and in many cases, had little or no formal education (Torrey, Kinsella & Taeuber 1987).

Whereas in developed countries there is a tendency for superior literacy skills in women over men across age groups, the information available suggests that this is not the case in developing countries. In contrast to women in younger age groups, older women in developing countries have lower literacy levels than older men (Torrey, Kinsella & Taeuber 1987).

INTEREST AND ABILITY TO ACQUIRE LITERACY IN LATER YEARS

While there is little doubt concerning the tendency for older people to have greater literacy problems, there is much debate over whether older adults are interested and/or able to learn how to read and write. The majority of older adults are not idle and prefer not to be (Sarvis 1973). Nearly half of illiterate older adults said they were 'interested' or 'very interested' in learning to write when surveyed (Kasworm & Courtenay 1982). Jacobs and Ventura-Merkel suggest that "even after 50, 60 or 70 years of coping, illiteracy remains a problem that can't go away by itself" (1986b pg 3). Illiterate older adults may want to achieve a life-long goal while they still have time and energy or they have a feeling of wanting to complete things (Kingston 1981).

The need to read may reach a critical point in the lives of many illiterate elderly as the extensive coping network built up over half a century of working around the problems of illiteracy begin to crumble (Fisher 1987; Jacobs & Ventura-Merkel 1986a; Kasworm 1981; Kingston 1981; Spore 1980). Non-reading adults rely on the literacy skills of others, develop routines in employment and family activities which circumvent their need to read or write. Loss of family or friends due to death or moving away, and loss of employment through retirement often lead to a drastic change in an illiterate individual's ability to deal with the printed world.

Aging may affect the need to acquire literacy skills in other ways. Associated with old age is often an increased involvement in complex governmental, social and medical programs (Jacobs & Ventura-Merkel 1986a; Kasworm 1981); declining health makes it more difficult to cope (Jacobs & Ventura-Merkel 1986a); fewer social interactions result in less opportunity to gain information through talking to people (Kasworm 1981), and; problems with vision and hearing make it more difficult to gain information from television and radio (Jacobs & Ventura-Merkel 1986b).

Interviews with older adults revealed situation specific interests relating to learning to read. Many illiterate elderly want to be able to read government documents, learn medical terms, correspond with distant family members or read newspapers (Spore & Pierce 1980). Improved literacy skills generally assist older adults with limited reading abilities to adjust to

the changes and problems that can arise as a result of aging (Kanner 1972; Wolf 1980).

Much research has been done on the effect of aging on learning. There is substantial empirical evidence to support that the ability to learn does not diminish with age (Bates & Schaie 1974; Brockett 1983; Hiemstra 1975; Jones 1979; McMahon 1979; Spore & Pierce 1980; Von Hahn & Riddell 1979). A decline in intelligence reported by some researchers has been refuted as being the result of other factors. Response time and speed are affected most by aging. When these factors are removed from tests of intelligence, it is clear that the elderly are capable of much rewarding learning (Hiemstra 1975; Jones 1979; McMahon 1979). Learning does take longer, however. More time is required to process and retrieve information (Von Hahn & Riddell 1979). Results of early cross sectional studies that showed declining intelligence with age may have been confounded by the effects of 'terminal drop', a sudden deterioration of mental facilities found during the last few years prior to an individual's natural death (Riegal 1973 as cited in Baltes & Schaie 1974). When longitudinal studies are done, it is clear that intelligence is not affected by aging. Changes in motivation level may also cause inferior performance on intelligence tests by the aged (Jones 1979).

Increases in cognitive functioning with age have been reported especially if it is high initially (Riegal & Riegal 1973 as cited in Haase Robinson & Beach 1979). Baltes and Schaie discuss different dimensions of intelligence, and suggest that 'crystallized intelligence' or the degree to which one has amassed knowledge of one's own society, actually increases with age. Older adults frequently outperform their juniors on tasks where they can rely on their experience (Jones 1979).

Historically, there has been a tendency for society to ignore the plight of the illiterate elderly. "To wait for improved measures and/or future generations of older adults who are expected to be literate is an injustice to the existing generation of older persons" (Courtenay, Stevenson & Suhart 1982 pg 350). There is some evidence to suggest that the notion that wide-spread illiteracy in older adults is temporary may be incorrect (Kingston 1981). Sharon (1973) compared the amount of time spent reading between younger and older adults and found older adults read more. Pfeiffer and Davis (1971 as cited in Kingston 1981) found adults tended to predict that they would do more reading after retirement than they actually did. The problem, then, of illiterate older adults may be a continuing one and the time has come for it to be addressed.

A gradual change in social policy toward older adults has been experienced by our society and may account for the increased concern for the educational needs of the elderly in recent years. In mid-century we rejected senior citizens, preferring to focus on youth. Society subsequently became concerned with providing for the primary needs of its aged. At the present, older adults are being reintegrated and rightfully acknowledged as part of main-stream society (Haase, Robinson & Beach 1979; Moody 1976 as cited McMahon 1979).

Gradually, a picture is emerging of the present situation of the illiterate older adult. We have seen that this is a group of sizable proportion, many of whom want to do something about their problem. Objections to assisting the elderly with reading programs have largely been overruled by research findings, or have disappeared naturally with changing society consciousness. It would seem that all the elements are in place for large numbers of senior citizens to be enrolling in adult basic education programs to improve their literacy skills. Unfortunately, this is not the case. The rate of participation of older adults in literacy programs is not consistent with the great number we know to have literacy problems (Daniel, Templin, & Shearon 1977 as cited in Davie et al 1978; Kasworm & Courtenay 1982; Spore 1980). On the whole, existing literacy programs targeted for the general adult population do not address the needs of the illiterate elderly. A sizeable body of research has been directed at determining the reasons for non-participation in adult basic education programs by older persons.

DETERRANTS TO PARTICIPATION BY OLDER ADULTS IN EXISTING LITERACY PROGRAMS

The most frequent reason illiterate older adults cite for why they do not attend programs, is that they do not want to go out at night or do not like the program scheduling (Goodrow 1975; Hiemstra 1982; Jacobs & Ventura-Merkel 1986b; Kasworm & Courtenay 1982; Sarvis 1983). Transportation problems were frequently mentioned as a deterrent to participation (Goodrow 1975; Hiemstra 1982; Kasworm & Courtenay 1982; Sarvis 1973).

Many other characteristics controlled by the plant or basic education programming department have been listed as Deterrents to attendance. Lack of awareness of program (Hiemstra 1982; Jacobs & Ventura-Merkel 1986b); inaccessible building (Jacobs & Ventura-Merkel 1986b; Sarvis 1973); prohibitive cost of program (Hiemstra 1982; Sarvis 1973); classes too long (Kasworm & Courtenay 1982); classes too often (Kasworm & Courtenay 1982); classes too large (Kasworm & Courtenay 1982); difficult enrollment procedure (Goodrow 1975; Kasworm & Courtenay 1982); strict attendance requirements (Goodrow 1975); use of testing in class (Goodrow 1975; Havinghurst 1976); and lack of a trusted person or friend within the program (Sarvis 1973).

General poor health was given as a reason for not participating in a literacy program by some older adults (Brockett 1983; Gentile & McMillan 1979; Jacobs & Ventura-Merkel 1986b; Kasworm & Courtenay 1982; Sarvis 1973). Other researchers found it was more likely to be fatigue rather than illness that was the problem (Baltes & Schaie 1974; Kasworm 1982; Mattran 1981). Additional reasons for non-participation originating from characteristics of the elderly potential students are: declining vision, hearing or mobility (Gentile & McMillan 1979; Goodrow 1975; Hiemstra 1982; Jacobs & Ventura-Merkel 1986b; Kasworm & Courtenay 1982; Sarvis 1973); personal fears (Gentile & McMillan 1979; Hiemstra 1975); and other responsibilities (Goodrow 1975; Hiemstra 1975; Jacobs & Ventura-Merkel 1986b).

The findings of research directed at collecting self-reports of seniors on their reasons for non-participation in general adult programs, suggest that new or different literacy programs for the elderly need to be developed. Substantial support for this comes from studies that have investigated the cognitive, psychological, motivational and interest differences between older and younger adults with respect to education needs.

DIFFERENCES BETWEEN OLDER AND YOUNGER ADULTS AS THEY AFFECT EDUCATIONAL NEEDS

I Cognitive Differences

We have already discussed older adults' continued interests and ability to learn. Research in the area of cognitive functioning in the elderly has found, nevertheless, that aging does affect some mental processes as they relate to learning. The ability to absorb sensory information coherently appears to decline with age (Spore 1980). Lingering sensory images and an inability to disregard irrelevant input may lead to confusion (Glynn & Muth 1979; Spore 1980). There is a general inability to efficiently organize material to be learned (Glynn & Muth 1979; Spore 1980). Deficiencies in organization tend to lead to poor retrieval of information (Glynn & Muth 1979; Haase, Robinson & Beach 1979; Spore & Pierce 1980; Woodruff & Walsh 1975). Mental processing in general slows down with increased age (Gentile & McMillan 1979; Prager 1983). Researchers who have found these difficulties consistently add that the problems do not disallow learning. It is likely that impaired sensory processing and slower response times are physiologically based. Teacher awareness of these potential difficulties, coupled with appropriate instructional practices, can make such problems insignificant in the classroom, however.

Organization and recall problems are processing rather than physiologically based. The majority of seniors experiencing difficulties respond very favourably to organizational and study skills training (Glynn & Muth 1979; Spore 1980; Woodruff & Walsh 1975).

II Psychological Differences

Undereducated older adults may suffer from a 'threshold problem' when returning to the classroom (Spore & Pierce 1980); memories of failure half a century earlier may lead to fears and attitude problems. Changing vocabulary, teaching practices and technology associated with education, often cause feelings of insecurity or anxiety (Spore 1980; Watson 1979). The elderly tend to be more cautious and concerned about the accuracy of their work than younger adults (Botwinick, 1966 as cited in Haase, Robinson & Beach 1979). They also more often choose to remain silent rather than

risk making a mistake (Spore 1973). Previous lack of education has been associated with poor self-image in illiterate older adults (Kasworm 1981) and a tendency to rely more on the teacher for direction in learning (Brockett 1983).

III Motivational and Interest Differences

Contrasting motives for attending basic education programs exist between older and younger adults. Whereas adults younger than age 55 enroll in courses for employment or skills upgrading, older adults are more often seeking self-actualization, personal fulfillment or socialization when they register for basic education courses (Cairns 1988; Kasworm 1982; Rigg & Razemak 1983; Council of Ministers of Education Canada 1988).

Associated with their different motivation for enrolling, seniors are reported to have a strong preference for subject oriented or task oriented learning; they generally do not want a traditional classroom environment in which basic literacy skills are taught (Hiemstra 1982; Kasworm & Courtenay 1982). The teaching of reading should be considered as the filling of lifelong needs and not simply literacy training (Wolf 1977 as cited in Watson et al 1979). Individual differences between people become greater with aging, and as such, we are reminded by several researchers, the interests of the older population are very diverse and reading materials in a literacy program must reflect this potential wide range of interests (Galvin et al 1975; Haase, Robinson & Beach 1979; Kasworm 1982; Von Hahn & Riddell 1979). It is possible, however, to describe the reading interests of a significant number of the elderly in general terms.

Surveys of older adults have shown that there is a great interest in understanding and solving their developmental problems. As such, topics associated with aging, widowhood, and the grieving process are keenly read (Haase, Robinson & Beach 1979). A greater interest in basic education courses with a life skills focus was found for older adults compared with younger adults. Specific interests were consumer oriented food purchasing and usage, nutrition, home health care and use of leisure time (Kasworm 1982). Hiemstra (1975) found finance related areas, as well as health, were the main topics of interest for older adults in reading courses. Senior citizens'

preferences for fiction are light romance, biographies, westerns, and mysteries (Kingston 1977).

DESIGN CONSIDERATIONS FOR A LITERACY PROGRAM FOR THE ELDERLY

I Initial Planning: A Multi-discipline Approach

Establishment of a successful program depends on multi-discipline cooperation (Spore & Pierce 1980). Gerontologists, social service and senior centre representatives, and education and language specialists should be involved at initial planning stages. This group should arrange to conduct a local needs assessment to determine particular language problems, cultural and ethnic backgrounds, and geographic locations in the community of the potential students. A study of the resources already available for the illiterate elderly should also be considered (Spore 1980). The results of these assessments will assist in locating the site for a literacy program. Many researchers have recommended the use of a site seniors attend for other purposes as a suitable location for literacy programs (Fisher 1975; Goodrow 1975; Jacobs & Ventura-Merkel 1986a, b & c; Kasworm 1981; Sarvis 1973; Spore 1980). In so doing, many of the reasons for non-participation disappear. Suggested locations have been senior centres, community centres, nursing homes, mobile units, and in-home programs. Specific site location is crucial: target group, transportation options, available facilities, materials and recruitment methods, staff requirements, potential teachers and teaching methods are all affected to some extent by the choice of site (Spore 1980). A strong commitment and ongoing communication with the manager or director of the facility is equally important (Jacobs & Ventura-Merkel 1986b). Without these, problems can arise. For example, a literacy program in a senior centre in the United States reported having difficulties with attendance as very popular outings were often scheduled at the same time as the literacy class (Spore 1980).

Whether to have age integration or segregation in the program should be considered. There are arguments for both. When the ages are mixed, as in an age-integrated program, students and teachers learn from one another and all can benefit (Sarvis 1973; Von Hahn & Riddell 1979). There appears to be more support for an age segregated program, however, as many older students report feeling more comfortable with their peers (Jacobs & Ventura-Merkel 1986a; Kasworm 1982; Spore 1980; Von Hahn & Riddell 1979).

Another decision of significance to be made in early planning stages is whether to use professional teachers or volunteer tutors. If volunteer tutors are used, plans for special training will need to be made. In any case, it is very important to have teaching staff in place before continuing to the next stage of planning.

II Program Specific Planning

Older adults typically do not seek out formal education (Kasworm 1981). Thus recruitment is necessary. This should start before detailed planning of the program occurs. The single most effective way to attract students is by direct contact with a sincere and trustworthy person (Jacobs & Ventura-Merkel 1986a; Kasworm 1981; Sarvis 1973; Spore 1980). Personal communication with a program representative is especially efficacious. The social services network may be used to locate potential students; older persons who need language skills are also likely to need other assistance (Spore 1980). Students already enrolled may also be able to assist in locating others with a need (Kasworm 1982).

Planning with, rather than for, the elderly is recommended (Haase, Robinson & Beach 1979; Knowles 1970; Rigg & Kazemak 1983; Sarvis 1973; Spore 1980). If potential students are involved at the organizational stages of a literacy program, great interest in participating often results. Illiterate older adults who suffer from self-image or self-confidence problems experience great benefit from such an experience.

Some of the details that can be worked out between students, teachers and possibly a representative from the building facility are, frequency, duration and scheduling of classes, transportation arrangements, cost of program, intake and assessment procedures, specification of learning goals and reading/discussion materials. The resultant programs will vary between locations. Research findings suggest, however, that most seniors prefer the following program characteristics: modest as opposed to free registration fee (Davie et al 1978; Sarvis 1973); class length of less than an hour (Kasworm 1982; Maklen 1983); a.m. preferred over p.m. (Kasworm 1982; Sarvis 1973; Spore 1980); one or two classes per week (Kasworm 1982; Sarvis 1973); assistance with transportation preferably in the form of a seniors' van

(Kasworm 1982; Spore 1980); continuous intake and completion certificate with no reference to grade level or 'score' (Davie et al 1978).

III Instructor Selection and Training

Whether the decision is made to use professional teachers or volunteer tutors, most people who have experience working in the field recommend specific training for teaching literacy skills to older adults (Harman 1983; Kasworm 1984). It is essential for the instructor to have a genuine interest in, and understanding of, older people (Von Hahn & Riddell 1979). The best teachers have a preference and commitment towards working with the elderly (Kasworm 1984). Several education specialists have suggested using literate seniors as tutors or peer supports for those acquiring literacy skills (Jacobs & Ventura-Merkel 1986a; Waters et al 1973). Fifteen to eighteen hours of training was found a suitable amount of preparation for the volunteer tutors (Jacobs & Ventura-Merkel 1986b). Teachers or tutors need to know the physiological and psychological effects of aging on the senses and speed of learning (Kasworm 1984; Von Hahn & Riddell 1979).

IV Teaching Methodology

The teacher's role is that of a facilitator or resource person and should not be as a transmitter of knowledge (Maklen 1983). The basic skills of reading, writing and computing should be integrated into a subject that appeals to the particular group of students who are learning (Kasworm & Courtenay 1982). Instructional strategies favoured by older adults are demonstrations, learning by doing, and discussions (Kasworm & Courtenay 1982).

Establishment of realistic personal goals for each student and for the group is important (Sarvis 1973). These should be referred to frequently. Use of learning contracts (a short written statement which specifies the learner's goal and when he hopes to achieve it), have been successful (Jacobs & Ventura-Merkel 1986b). Constant positive feedback is important to give a sense of achievement (Davie et al 1978; Kasworm and Courtenay 1982; Spore 1980). The possibility of failure should be minimized and motivation levels kept high (Jacobs & Ventura-Merkel 1986b). "In tutoring the older adult who may be apprehensive about learning to read, success should start with the first lesson" (Jacobs & Ventura-Merkel 1986c pg viii).

In the context of a theme which is meaningful to the students, the standard pedagogical techniques for literacy training of adults are thought appropriate for the elderly. The preferred method is known as the Language Experience Approach in which elderly readers are assisted in writing their own experiences or opinions. This produces reading material which is usually of high interest and low vocabulary for the beginning reader (Haase Robinson & Beach 1979; Jacobs & Ventura-Merkel; Maklen 1983; Spore 1980). Other strategies are development of sight word recognition (words that are quickly read and understood), use of phonics training (teaching the sounds the letters represent), and teaching understanding of word patterns (e.g. that get, wet, set and let sound similar).

Mention was made earlier of cognitive characteristics of the older adult which can lead to learning problems in a conventional literacy program. Education researchers have made practical suggestions for teachers to help their older students overcome these difficulties. Material must be presented slowly to allow for longer processing times (Jacobs & Ventura-Merkel 1986b; Woodruff & Walsh 1975). Instructors must be flexible in this regard because students may vary in the time needed to take information in (Jacobs & Ventura-Merkel 1986b; Kasworm & Courtenay 1982). Focus and recall are improved if lessons are divided into distinct sections (Spore 1980), advanced organizers are offered (Glynn & Muth 1979), material is of high interest (Jacobs & Ventura-Merkel 1986b) and actively related to what the learner already knows (Prager 1983; Watson 1979).

Fears and apprehensions about being in a learning situation can be greatly reduced if social interaction is freely mixed with educational experiences (Haase, Robinson & Beach 1979; Rigg & Kazemak 1983). Making reading a pleasurable activity as well as developing it for functional purposes, will assist in enriching the life of the new older reader (Kingston 1981).

Appropriate teaching materials should reflect the individual students' interests and reading level as well as possess certain physical characteristics for easy use by older readers (Jacobs & Ventura-Merkel; Kasworm & Courtenay 1982). Type should be large and well-spaced and printed on non-glossy paper (Jacobs & Ventura-Merkel 1986c).

GROUPS WITH SPECIAL NEEDS WITHIN THE ILLITERATE ELDERLY

There is a limited amount of evidence to suggest that there are groups within the illiterate elderly population who have distinct characteristics. Their experiences of illiteracy may thus vary, as possibly our methods for assisting them should. Unfortunately, the lack of a good literacy assessment tool for seniors and resulting limited survey findings, means no hard data is available on these groups.

The plight of the elderly immigrant has largely been overlooked by education planners and researchers. The assumption has been that older immigrants with language problems do not need help because they tend to live in close-knit ethnic communities. One researcher reports, however, that most elderly immigrants live alone and are financially independent (Spore 1980). By necessity, such older adults would experience a need to interact with Canada's English or French culture on a daily basis. It is likely that this group of potential students would be harder to reach. Need for English or French as a second language instruction as well as literacy training, would require use of different teaching strategies. We can expect the number of illiterate elderly immigrants to increase as Canada accepts more immigrants from developing countries. Third World countries have a tendency for much higher levels of illiteracy in their aged (Torrey, Kinsella & Taeuber 1987).

Elderly in rural areas have even less opportunity to pursue educational activities (Sarvis 1973). Decreased availability of social services and recreational activities combined with almost non-existent public transportation, means that literacy programs for the elderly operating in urban areas may not be known or accessible to the rural illiterate elderly (Sarvis 1973; Townsend 1971 as cited in MacMahon 1979).

A BRIEF LOOK AT LITERACY PROGRAMS FOR SENIORS

Consideration of past or present literacy programs designed specifically for older adults is not easy. There is scant written material available on their operation details. In Ontario, literacy programs for seniors in a particular area may be located by contacting the branch office of the Ministry of Education. Individual school boards receive funding for adult basic education programs (literacy and numeracy) and lists of those in operation are available. Since 1986, funding has also been available to Ontario school boards for programs in community settings run in co-operation with other local organizations.

Teacher training, materials and curriculum development and program operation are all considered to be under the jurisdiction of the individual school boards. The Ministry of Education does not make any guidelines available on these aspects of the program, nor does it provide a forum for representatives from school boards with programs to meet and discuss issues and problems. The grants available simply help defray the expenses incurred by the school board.

There does not appear to be any communication between the Ministries of Education in Canada on the subject of literacy program development and operation for older adults.

School boards, and other organizations interested in starting a literacy program for seniors, must do so largely without the benefit of communicating with others with similar mandates.

Papers describing several U.S. literacy or basic education projects for the elderly were located. A review was undertaken of adult basic education programs in Georgia and Texas with the goal of learning more about the educational requirements of older adults (Kasworm & Courtenay 1982). A curriculum manual for adult basic education teachers of older adults was produced. The manual has seven self-contained modules which correspond to the seven topics that emerged from an assessment of older adults' interests. The materials cover both basic literacy and numeracy skills.

A series of pilot programs which met with mixed success in the New York City area were reported (Spore 1980). None of the 12 courses was

continued after the 14 week original program finished. A senior centre in Harlem closed a planned literacy program early due to very negative reaction from the students. In this particular program, the course advertising did not mention the orientation on literacy skills development for fear of lack of interest. Instead, older adults with known literacy problems were asked to participate in an oral history program. It was hoped that the common ground of illiteracy would be noticed and literacy tutors were to be made available at that time. Most of the participants withdrew from the program when they realized the organizers' intent.

The Literacy Education for the Elderly Project was an ambitious and successful program sponsored by the National Council on Aging under a grant from the Fund for the Improvement of Post-Secondary Education in the United States. Twenty-seven sites across the U.S. were set up and volunteer older adult literacy tutors and peer supports were recruited and trained. At the end of the two year trial in 1986, more than 600 students had participated in the program and more than 500 volunteer tutors had been trained. Twenty sites had arranged funding to continue operation.

Efforts were made to bring the aging services network together to develop program details appropriate for specific areas. The proposed model is one of joint sponsorship: technical expertise such as teaching materials and training should be controlled by a community literacy organization; operation details can be coordinated by staff at a centre that older adults attend.

Three publications were developed in association with the project (Jacobs & Ventura-Merkel 1986a, b, and c).

1. Organizing a Literacy Program for Older Adults

This booklet offers a guide for program development. Management issues are discussed, details of the 27 programs are included as well as recommendations for program design and a resource list of interest to teachers of illiterate older adults.

2. Tutoring Older Adults in Literacy Programs

Special needs and interests of illiterate older adults are outlined along with appropriate teaching strategies.

3. Update on Healthy Aging: Reading Material on Health Topics for the New Reader and Tutor

Low-vocabulary, high interest reading materials on health related topics are included in this booklet. Each of the 15 units has an introduction for the tutor which offers teaching suggestions.

CONCLUSIONS

Illiteracy among Canada's older adults is widespread. Depending on region and measurement technique used, recent literacy survey results indicate that 28% to nearly 52% of seniors in this country have significant reading and writing difficulties. This level is unacceptably high in the light of research findings that suggest illiterate older persons generally are interested in, and can benefit from, basic literacy training.

Encouraging the illiterate elderly to register in existing literacy programs designed for the general adult population, is not recommended. Many differences between older and younger adults that affect participation and success in basic education courses have been reported by researchers. Older adults appear to differ from their juniors with respect to physical and psychological needs, cognitive functioning, motivation and interests.

The notion that there is a need for literacy programs developed specifically for illiterate seniors has widespread support from specialists and researchers who have investigated the problem. Such programs should use the resources and expertise that are available from the 'aging network' and be situated in sites that seniors already attend for other purposes. Programming details, teaching strategies, and materials used, should reflect the needs and characteristics of the elderly learner.

There are literacy programs for illiterate older adults in operation in Canada today but these are only reaching a small minority of those who need them. A stronger commitment realized in the form of well-planned, widely available programs is essential if the alarmingly high incidence rate is to be reduced to any significant degree.

SUGGESTIONS FOR FURTHER STUDY AND ACTION

INCREASED AWARENESS OF THE PROBLEM

There is a general lack of awareness as to the extent and nature of illiteracy in older adults. As a result, there is widespread insensitivity to reading and writing problems that the elderly may experience. In many cases, a literacy problem may not be noticed or illiterate seniors may be sent to programs that do not meet their needs. Increased public awareness is essential to attract the necessary commitment and resources.

SIMPLIFY AND REDUCE OFFICIAL PAPERWORK

In recognition of the significant reading and writing problems faced by many older Canadians, we should strive to reduce the amount of official paperwork seniors are required to deal with. Reading and writing tasks that are unavoidable should be simply written or laid-out and legible.

GUIDELINES FOR NEW PROGRAMS

Senior centre and social service representatives, literacy experts and education planners should meet at a national or provincial level to develop a set of guidelines to assist local groups to establish community-based programs. Issues covered could include strategies for identifying students, appropriate locations for programs and sources for provision of funding, training and resources relating to literacy instruction.

TEACHER TRAINING AND SUPPORT

Special training and support are needed for instructors working with illiterate seniors. Consideration should be given to adoption or development of both a training course for teachers and a corpus of appropriate reading materials for older new readers. This assistance is generally not now being provided for literacy teachers of the elderly.

A LITERACY SURVEY OF OLDER CANADIANS

In our study of illiterate older adults in Canada we have been limited by a lack of a good working definition of functional literacy for our target group. Because of this deficiency, available statistics are not sufficiently extensive or reliable. A literacy survey directed at the elderly population would permit better insight of the extent of the problem as well as provide much needed information on groups within the illiterate elderly who might have different and perhaps more pressing needs.

REFERENCES

Adult Performance Level Project. The Adult Performance Level Study: Final Report. Austin: University of Texas, 1977. ERIC ED 185 113.

Allington, Richard L. and, Walmsley, Sean A. Functional competence in reading among the urban aged. Journal of Reading 23.6 (1980):494-497.

Ansello, Edward F. Gerontology Programs in the Life Transition Process. In Gene C. Whaples, William M. Rivera (eds) Lifelong Learning Research Conference Proceeding. 1983:1-5 ERIC ED 226 228.

Ausubel, D.P. The facilitation of meaningful verbal learning in the classroom. Educational Psychologist 12 (1977): 162-178.

Baer, P.E. Cognitive changes in aging; Competence and incompetence. In C.M. Gaitz (ed) Aging and the Brain. New York: Plenum Press, 1972.

Baltes, Paul B, Schaie, K. Warner. Aging and IQ: The myth of the twilight years. Psychology Today 7 (March 1974): 35-40.

Barton, David. Religion, Censorship and Idleness: Attitudes to Literacy 80 Years Ago. Paper presented at LSA Conference Language and Adult Literacy, New York, July 1986.

Birkhill, William R. and, Schaie, K. Warner. The effect of differential reinforcement on cautiousness in intellectual performance among the elderly. Journal of Gerontology 30.5 (1975): 578-583.

Bormuth, J.R. Reading literacy: Its definition and assessment. Reading Research Quarterly 9 (1973): 7-66.

Botwinick, J. Cautiousness in advanced age. Journal of Gerontology 21 (1966): 347-353.

Brockett, Ralph G. The Relationship Between Life Satisfaction and Self-Directedness Among Older Adults. In Gene, C. Whaples and William M. Rivera (eds) Lifelong Learning Research Conference Proceedings, 1983:16-20 ERIC ED 226 228.

Cairns, John, and Kirkwood, Kristian John. Some observations on literacy in Canada and a method to improve the match between reading materials and readers. In Douglas Ray, Ann Harley and Michael D. Bayles (eds) Values, Life-Long Education and an Aging Canadian Population. London, Canada: Third Eye Publications Inc. 1983.

Cairns, John C. 1988 Adult Illiteracy in Canada. Toronto: Council of Ministers of Education, Canada.

Council of Ministers of Education. 1988. Adult Illiteracy in Canada; Identifying and Addressing the Problem. Toronto.

Courtenay, B.C., Stevenson, R.T., and Suhart, M.P. Functional literacy among the elderly: Where we are(n't). Educational Gerontology 8 (1982): 339-352.

The Creative Research Group Ltd. Literacy in Canada. A Research Report. Ottawa: Southam News, 1987.

Daniel, D.E., Templin, R.G. and Shearon, R.W. The value orientations of older adults toward education. Educational Gerontology 2.1 (1977): 33-42

Davie, Lynn, Davie, Sonja, MacKeracher, Dorthy, Ironside, Diana, Educational Needs and Learning Conditions of Adult Learners Commission on Declining School Enrolements in Ontario. Toronto: Ontario Institute for Studies in Education. 1978. ERIC ED 197 451

De Santi, R.J. Cue system utilizations among older readers. Educational Gerontology 4 (1979): 271-277.

Fisher, Donald L. 1978. Functional Literacy and the Schools. National Institute of Education, Department of Health, Education and Welfare.

Fisher, J.C. Literacy Usage Among Older Adults. In Landers (ed) Enchanging at the crossroads... Research and Practice. Program and Proceedings for the Annual Adult Education Research Conference (27th Syracuse, New York) 1986: 94-99. ERIC ED 269 571.

_____. Reading Activities Among Older Adults. In S. Joseph Levine et al (ed) The Midwest Research to Practice Conference in Adult and Continuing Education (East Lansing, Michigan) 1987:46-51. ERIC ED 295 046.

_____. The literacy level among older adults: Is it a problem? Adult Literacy and Basic Education 11.1 (1987): 41-50.

Friedmann, E.A. Changing value orientations in adult life. In Hobert W. Burns (ed) Sociological Backgrounds of Adult Education. Chicago: Center for the Study of Liberal Education for Adults, 1964.

Galvin, Kevin et al. Educational and Retraining Needs of Older Adults. Final Project Report. Sacramento: Office of the Chancellor. 1975. ERIC ED 0132

Gentile, Lance. M., and McMillan, Merna. Reading: A means of renewal for the aged. Educational Gerontology 4 (1979): 215-222.

Gerads, Betsy. The Relationship Between Personality Type and the Participation in Education of Older Adults. Proceedings of the Annual Adult Education Research Conference (23rd, Lincoln, Nebraska). 1982. ERIC ED 217 139.

Glynn, Shawn M., Muth, K. Denise. Text learning capabilities of older adults. Educational Gerontology 4 (1979): 253-269.

Goard, Dean, S. and Dickinson, Gary. The Influence of Education and Age in Participation in Rural Adult Education. Minister of Regional Economic Expansion. Ottawa: Information Canada. 1971.

Goodrow, Bruce A. Limiting factors in reducing participation in older adult learning opportunities. The Gerontologist 15.5 (1975): 418-422.

Green, Rosalie E. A Compilation of State Statutes that Include Education/Training Benefits for Senior Citizens. 1983. ERIC ED 236 365

Haase, Ann Marie Bernazza, Robinson, Richard D. and Beach, Ruth. Teaching and aged reader: Issues and strategies. Educational Gerontology 4 (1979): 229-237.

Harmen, Keith A. Non-persistence and the Adult Learner: What We Know About It and What We Can Do About It. Proceedings of the Annual Midwest Research-to-Practice Conference in Adult Continuing Education (2nd, DeKal, Illinois). 1983: 57-61. ERIC ED 262-214.

Harris, Louis and Associates Inc. Survival Literacy Study. New York: National Reading Council. 1970. ERIC ED 068 813.

Harvey, Rhonda, L., and Dutton, Donna. Reading interests of older adults. Educational Gerontology 4 (1979): 209-214.

Haverson, Wayne H. Adult illiteracy: Implications for parent involvement. In Carmen Simich-Dudgeon (ed) Issues Of Parent Involvement and Literacy. Proceedings of the Symposium held at Trinity College, Washington, D.C. 1986: 56-63. ERIC ED 275211.

Havinghurst, R.J. Education through the adult life span. Educational Gerontology 1 (1976):41-52.

Heisel J., Larson G. Literacy and social milieu: Rating behaviour of the black elderly. Adult Education Quarterly 34.2 (1984): 63-70.

Hiemstra, Roger. The Older Adult and Learning. Nebraska State Department of Education. Lincoln: Division of Adult Education. 1975. ERIC ED 117371.

Hiemstra, Roger. The Elderly Learner: A Naturalistic Inquiry. Proceedings of the Annual Adult Education Research Conference (23rd, Lincoln, Nebraska) 1982. ERIC ED 217 139.

Holcomb, C.A. The close procedure and older adults: Effects of age and schooling. Educational Gerontology 4.3 (1979): 279-295.

Illiteracy and the Scope of the Problem in this Country. Hearing before the Subcommittee on Post Secondary Education. Washington, D.C.: U.S. Government Printing Office, 1984.

Jacobs, Bella, and Ventura-Merkel, Catherine. Organizing a Literacy Program for Older Adults. Literacy Education for the Elderly Project. National Council on the Aging Inc. Washington, D.C. 1986a. ERIC ED 286 001.

_____. Tutoring Older Adults in Literacy Programs. Literacy Education for the Elderly Project. National Council on the Aging Inc. Washington, D.C. 1986b. ERIC ED 286 002.

_____. Update on Healthy Aging: Reading Material on Health Topics for the New Reader and Tutor. Literacy Education for the Elderly Project. National Council on the Aging Inc. Washington, D.C. 1986c. ERIC ED 286000.

Jones, Edward E. Adult education and the older adult. Educational Gerontology 4 (1979): 349-359.

Jones, R.C. Persistence of Students in Western Kansas ABE/GED Programs. Doctoral dissertation, Kansas State University, 1979.

Kanner, Elliott. The Impact of Gerontological Concepts on Principles of Librarianship. Unpublished doctoral dissertation University of Wisconsin. 1972.

Kasworm, Carol, and Courtenay, Bradley, C. Functional Literacy in Older Adults: Proactive Approaches to Research and Teaching. Presented at the National Adult Education Conference, San Antonio Texas 1982. ERIC ED 229559.

Kasworm, Carol. The Illiterate Elderly. 1981. ERIC ED 215 282.

Kasworm Carol E. Older learners in adult basic education. Adult Literacy and Basic Education (winter 1982) 195-207.

Kasworm, Carol E. A profile of teachers of older adult basic education learners. An exploratory examination. Adult Literacy and Basic Education 8.2 (1984): 80-90.

Kingston, Albert J. Jr. Reading and the aged: A statement of the problem. Educational Gerontology 4 (1979): 205-207.

_____. Does literacy really enhance the lives of the elderly? Reading World 20.3 (1981): 169-171.

Kirsch, Irwin, and Guthrie, John. The concept and measurement of functional literacy. Reading Research Quarterly 13.4 (1978): 485-507.

Limage, Leslie J. Adult literacy policy in industrialized countries. Comparative Education Review 30.1 (1986): 50-72.

Lovelace, Terry. Enhancing the lives of nursing home patients through reading activities. In Laura S. Johnson (ed) Reading and the Adult Learner. International Reading Assoc. 1980: 7-12. ERIC ED 179921.

Lumsden D. Barry: Why Johnny's grandparents can't read. Educational Gerontology 4 (1979): 297-305.

MacLean, Margaret and MacLean, Michael J. Phase II of Reading and the Elderly: Towards a Conceptual Model of Value of Reading. 1979. ERIC ED 186 849.

MacMahon, Alexander T. Needs for new emphases in social and educational policy toward the elderly. Educational Gerontology 4 (1979): 101-113.

Maklan, Nancy E. Nonformal Education as an Empowering Process for Older North Americans. In Gene E. Whaples and William M. Rivera (eds) Lifelong Learning Research Conference Proceedings. 1983:31-35. ERIC ED 226 228.

March, G.B. Hooper, J.O. and Baum, J. Lifespan education and the older adult. Educational Gerontology 2 (1977): 163-172.

Mattran, Kenneth, J. Breaking Through the Decoding Barrier; A Case Study in Adult Literacy. 1981. ERIC ED 203 131.

Moody, H.R. Philosophical presuppositions of education for old age. Educational Gerontology 1 (1976): 1-16.

Nafziger, Dean H. Thompson, R.B. Hiscox, M.D. and Owen, T.R. Tests of Functional Adult Literacy: An Evaluation of Currently Available Instruments. Portland, Oregon: N.W. Regional Educational Laboratory. 1976. ERIC ED 109 265.

Northcutt, Norvell. Adult Functional Competency: A Summary. Austin, Tex: The University of Texas, 1975.

Ontario Ministry of Skills Development. 1988. A Directory of Literacy and Adult Basic Education Programs in Ontario. Toronto: MGS Publications Service.

Pfeiffer, E. and Davis, G.C. The use of leisure time in middle life. The Gerontologist 11 (1971): 187-195.

Powell, A.H. Jr., Eisdorfer, C. and Bogdonoff, M.D. Physiologic response patterns observed in a learning task. Archives of General Psychiatry, 10 (1964): 192-195.

Prager, Karen. The Impact of Development on Adult Learning: A Review of Research. In Gene, C. Whaples and William M. Rivera (eds) Lifelong Learning Research Conference Proceedings. 1983:11-15. ERIC ED 226228.

Report on the Fight against Illiteracy. Social European Commission of the European Communities. Luxembourg: Office for Official Publications of the European Communities, 1988.

Riegal, Klaus and Riegal, Ruth. Life or death and IQ. Newsline May 1973.

Rigg, Pat and Kazemak, Francis. Literacy and elders: What we know and what we need to know. Educational Gerontology 8 (1983): 417-424.

Robinson, Richard, D., and Haase, Ann Marie Bernazza. The reading process and the elderly. Educational Gerontology 4 (1979): 223-228.

Robinson, R.D. and Maring, G. The aging process and its relationship to reading: A review of literacy from gerontology with implications for future research. In W.P. Miller and G.H. McVinch (eds) Reflections and Investigations on Reading, Clemson, S.C.: National Reading Conference, 25th Yearbook 1976, 70-78.

Sadowski, Bernard Stanley and Schill, William John. Educational implications of affiliation factors existent among members of senior centers. Educational Gerontology 4 (1979): 67-75.

Sarvis, Robert E. Educational Needs of the Elderly: Their Relationships to Educational Institutions. Final Report. National Center for Educational Research and Development 1973. ERIC ED 075 717.

Saskatchewan Department of Education. A New Beginning. A Background Paper on Adult Illiteracy and Undereducation in Saskatchewan. 1987.

Sharon, A. What do adults read? Reading Research Quarterly 9 (1973): 143-169.

Sloane, A.E. and Draut, J.A. The pleasures of reading need not diminish with age. Geriatrics 30 (1975): 117-118.

Spore, Melissa. Extending Basic Education to the Elderly: A Guide to Program Development. 1980. ERIC ED 207 639.

Spore, Melissa and Pierce, Nancy. Adult Basic Education and ESL: Prospects for Integration of Education and Gerontology. 1980. ERIC ED 210 055.

Statistics Canada. The Elderly in Canada. 1981 Census. Ottawa. 1984.

Statistics Canada. Population. Historical Tables for Census Education Data 1971, 1976, and 1981. Ministry of Supply and Services, Canada. 1984.

Steinberg, Heinz. Books and readers as a subject of research in Europe and America. International Social Service Journal 24 (1972): 753.

Third Career Research Society. 1976. Retirement in Alberta. Edmonton, Alberta: Third Career Research Society.

Torrey, Barbara Boyle, Kinsella, Kevin and Taeuber, Cynthia, M. 1987. An Aging World. International Population Reports Series P.95, No. 78. U.S. Dept. of Commerce.

Townsend, C. 1971. Old Age: The Last Segregation. New York: Barton.

UNESCO. 1988. Compendium of Statistics on Illiteracy. No. 30. Paris: Division of Statistics on Education. Office of Statistics.

Videbeck, R. Knox, A.B. Alternative participatory responses to aging. In A.M. Rose and W.A. Peterson (eds) Older People and Their Social World: The Subculture of the Aging. Philadelphia: Davis, 1965.

Von Hahn, M and Riddell, G. Effective Teaching and Programming for Older Adults. Vancouver: Vancouver Centre for Continuing Education. 1979. ERIC ED 195 733.

Walmsley, Sean A. Scott, Kathleen M. and Lehrer, Richard. Effects of document simplification on the reading comprehension of the elderly. Journal of Reading Behavior 13.3 (1981): 237-248.

Waters, E. Fink S. and White, B. Peer group counselling for older people. Educational Gerontology 1 (1976): 323-330.

Watson, Dorothy J et al. Describing and Improving the Reading Strategies of Elderly Readers. 1979. ERIC ED 182 724.

Westmount Research Consultants Inc. Literacy Public Opinion Survey. 1987 Update. Prepared for the Canadian Business Task Force of Literacy, Montreal, Canada. 1987.

Wilson, Molly M. Enhancing the lives of the aged in a retirement center through a program of reading. Educational Gerontology 4 (1979): 245-251.

Wolf, Ronald E. What is reading Good for? Perspectives from senior citizens. In Laura S. Johnson (ed) Reading and the Adult Learner. International Reading Association, 1980:13-15. ERIC ED 179 921.

Woodruff, Diana S. and Walsh, David A. Research in Adult learning: The individual. The Gerontologist 15.5 (1975): 424-430.